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Remarks

Independent claims 66 and 71 have been amended and dependent claim 72 has been rewritten in independent form as shown above. Antecedent basis for the amendments to claims 66 and 71 may be found in the Substitute Specification at, e.g., paragraphs 0051, 0065 and 0068. Following entry of this amendment, claims 21-43 and 66-92 will be pending in this application.

Rejection of claims 66 and 67 Under 35 U.S.C. §102(b)

Claims 66-67 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,828,694 (Leason) on grounds that:

"As to claim 66, Leason discloses a method of attaching a component to a web of material comprising filtration material (11), the method comprising: providing a web of material comprising a layer of filtration material and having first and second major surfaces (e.g. opposite sides of sheet #13 of the filter web #11) and an aperture (14); b. providing a component (95 of fig.2) comprising a base portion (see flange on component 95 of fig. 2) and a deformable extension member (see portion which extends from flange of component 95 of fig. 2) that extends from the base portion to a tip; c. inserting the tip through the aperture (fig. 5); and d. deforming (see deformed extension in fig. 5 which is pressed into sealing engagement with flanged grommet support #54) the extension member so as to make an effective seal between the component and the web of material.

"As to claim 67, the component (95 of fig. 5) of Leason is clamped in fluid-tight relationship to the filtration material" (See the Office Action at pages 2-3, numbered paragraph 3).

Reconsideration is requested. Leason's component 95 is a "metal grommet" (see e.g., col. 4, line 60). Amended claims 66-67 recite a method step employing a "component comprising a base portion and a deformable plastic extension member that extends from the base portion to a tip". Leason does not anticipate claims 66-67. Applicants request withdrawal of the rejection of claims 66-67 under 35 U.S.C. §102(b) as being anticipated by Leason.

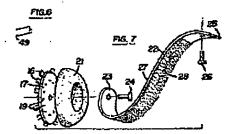
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Rejection of claim 71 Under 35 U.S.C. §102(b)

Claim 71 was rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,273,119 (Marchello) on grounds that:

"As to claim 71, Marchello discloses a method of making a respiratory mask, wherein a component is attached to a mask body, the method comprising: providing a mask body comprising a layer of filtration material (35) and having an aperture (through end portion #39) therein; providing a component (24) comprising a base portion (see flanged head of rivet #24) and a deformable extension member (see shaft of rivet #24 extending from flanged head) that extends from the base portion to a tip; inserting the tip (figs. 6 and 7) through the aperture; and deforming the extension member (col. 3, lines 60-62) so as to make an effective seal between the component and mask body." (See the Office Action at page 3, numbered paragraph 4).

Reconsideration is requested. Marchello's rivet 24 appears to have a solid shaft:



Amended claim 71 recites a "component comprising a base portion and a deformable hollow extension member that extends from the base portion to a tip". Marcello does not anticipate claim 71. Applicants request withdrawal of the rejection of claim 71 under 35 U.S.C. §102(b) as being anticipated by Marchello.

Rejection of claims 68-70 Under 35 U.S.C. §103(a)

Claims 68-70 were rejected under 35 U.S.C. §103(a) as being unpatentable over Leason in view of U.S. Patent No. 2,087,969 (Gookin) on grounds, inter alia, that:

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"The difference between Leason and claim 68 is the step of deforming the extension member by contact with a forming punch and die, whereby a deformed portion of the extension member is bent relative to a non-deformed portion of the extension member.

"Gookin (page 2, col 1, lines 38-41 and col. 2, lines 38-64), in a method and tool for roll clenching, teaches the steps of loading the component (10) onto a die of a cooperating punch and die system and supporting at least a portion of the component base portion by an anvil portion (30) of the die for the purpose of bending/deforming an extension member (11) against the web (21) in clamping relationship therewith. At least one of the advantages method of Gookin is its compatibility with automatic high speed inserting machines for improved speed and efficiency (page 2, col. 2, line 45).

"Leason discloses a method of attaching a component (95) to a filtration web by bending a flange back against a flanged grommet support and clamping the web in relationship therewith It would have been obvious to bend the flange of Leason back against the filtration web by loading the component onto a die of a cooperating punch and die system and supporting at least a portion of the component base portion by an anvil portion of the die for the purpose of bending/deforming the flange against the web in clamping relationship therewith because it would have provided an efficient and mechanized method of attaching a plurality of component to a plurality of filtration webs in a sequential manner as taught by Gookin.

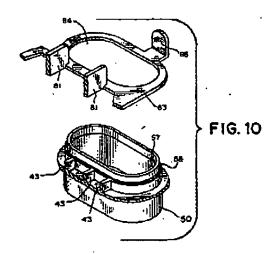
"As to claim 69. Gookin teaches the step of deforming the extension member back towards the component base portion is conducted as a cold forming process. That is, there is no disclosure of adding heat to the process." (See the Office Action at pages 4-5, numbered paragraph 6).

Reconsideration is requested. Leason involves a metal grommet (see e.g., col. 4, line 60) and Gookin involves a ductile metal eyelet (see e.g., page 1, col. 1, lines 1-4). Claims 68-70 recite a method step employing a "component comprising a base portion and a deformable plastic extension member that extends from the base portion to a tip". Neither

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Leason nor Gookin would be germane to the method of claims 68-70, and if combined they would not provide such a method.

Gookin is said to be "concerned more especially with an improved method of, and improved means for, roll-clenching eyelets in a matter to increase their holding power or security in soft materials capable of being stretched, such as leather and textile fabrics" (see e.g., page 1, col 1, lines 9-15). Leason contains no indication that holding power or security would be an issue when using metal grommet 95 to fasten the plate 83 to base member 40. Leason does say however that to improve "sealing" at this joint he prefers to eliminate the metal grommet 95 entirely and would instead use sonic welding to form a weld at weld bead 58 through filtration media 12 (see e.g., col. 4, lines 51-64 and Fig. 10, reproduced below):



Gookin thus would not be combined with Leason to modify Leason's device as proposed in the Office Action.

The Office Action also asserts, inter alia, that:

"As to claim 70, it is noted that neither Leason nor Gookin expressly discloses the use of heat to aid in the deforming of the extension member. The use of heat as an aid in the deformation of a substance produces an expected result of causing the substance to become more malleable. It would have been obvious to employ heat in the deformation step of Leason as modified by Gookin as an obvious matter of

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design choice because of the known and expected results of increased malleability by adding heat to a substance thereby enabling faster and more complete deformation of the extension member during the deforming step." (See the Office Action at page 5, numbered paragraph 6).

Reconsideration is requested. As noted above, Leason and Gookin would not properly be combined as proposed in the Office Action. If combined, they would not provide the method of claim 70. Gookin contains no indication that more speed would be needed or attained by heating his eyelets. Note also that the degree of heating that might be required to make Gookin's metal eyelets more malleable might cause undesirable melting or distortion of Leason's plate 83 or base member 40. Leason does not heat his metal grommet 95. Instead as noted above Leason prefers to eliminate metal grommet 95 entirely in favor of some welding.

Applicants accordingly request withdrawal of the rejection of claims 68-70 under 35 U.S.C. §103(a) as being unpatentable over Leason in view of Gookin.

Conclusion

Applicants have made an earnest effort to address the Office Action's arguments. Leason employs a metal grommet and does not anticipate claims 66 or 67. Marchello employs a solid rivet and does not anticipate claim 71. Gookin employs a metal eyelet, would not be combined with Leason to modify Leason's device and if nonetheless combined with Leason would not provide the method of claims 68-70. Withdrawal of the rejections and passage of the application to the issue branch are requested. The Examiner is also encouraged to call the undersigned attorney if there are any questions regarding this application or this amendment.

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Respectfully submitted on behalf of 3M Innovative Properties Company,

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